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TULIP POPLAR

Photo by Courtesy U. S. Forest Service.

EVEN-AGED TWENTY-FIVE-YEAR-OLD STAND OF TULIP POPLAR

MARYLAND STATE BOARD OF FORESTRY
BALTIMORE, MARYLAND

TULIP POPLAR (Yellow Poplar)

(Liriodendondron tulipifera)

The tulip poplar is one of the most rapidly growing species native to the forests of Maryland. While quite rare in the extreme western section of the State, it abounds throughout the Piedmont and Coastal Plain, usually as scattered specimens, occupying about 15% of the entire stand, or rarely in some particularly favored spot, in pure stands up to one-half acre in area.

The tulip poplar attains the largest size of any of our native trees, specimens 5 feet in diameter and more than 100 feet in height are often found. The high value of the lumber, its adaptability to many uses and its rapidity of growth make it a highly desirable species for the woodlot and for planting.

This tree is rare in Garrett County, infrequent in Allegany County, but becomes increasingly common eastward in the Piedmont section, and the higher portions of the Coastal Plain. It again becomes rare or totally absent from the southernmost counties of the Eastern Shore.

Frequently clear of branches for one-half its total height, the tulip poplar is an extremely tall straight boled tree. The crown is short and narrow, and the trunk holds its diameter for a greater distance up the stem than any other native species. The leaves are alternate, simple, with a peculiarly abrupt apex, somewhat resembling a fish's tail. On young trees the bark is smooth and gray in color, but soon thickens into long regular furrows, with rounded ridges between, that have a distinctive light gray color. The fruit is cone-like consisting of many winged seeds, which are scattered during the winter. The lower outer seeds of the cone, however, persist until early spring, and serve as a means of winter indentification. On account of the low fertility, of the seeds the number germinating is not high. Of these, many die from lack of light, as the species throughout its life can not endure shade.

Up to 30 years the tree sprouts readily and this method of reproduction may be used to a limited extent.

Soil And Moisture.

Demanding plenty of moisture but not growing in swampy places the tulip poplar does best on deep, rich, moist soil. It is also absent from dry hillsides and slopes but is found on mountain slopes where small streams and springs are prevalent. It is particularly common at the base of mountains, along streams and moist locations.

Enemies.

The tulip poplar is comparatively free from insect damage and fungous diseases. Defects are usually found only in the old trees, and consist of wind shake, frost crack, and stained wood.

Fire is responsible for most of the damage done to tulip poplar. The lightest surface fire will kill the young trees on account of the very thin bark; and even large, mature trees can be severely injured.

Cattle and sheep cause considerable damage when allowed access to the tender leaves and shoots.

Uses Of The Wood.

The wood of the tulip poplar is soft, not durable, and easily worked. The heartwood is light yellow, the sapwood is white. The mellow heartwood such as is found in large trees, is highly prized for pattern making, furniture and veneers. The more rapid growth characteristic of the Maryland tulip poplar, produces a wood that is somewhat more tough, and less easily worked. It is chiefly used for basket and cigar box veneers and for pulpwood.

Suitability For Planting.

As already intimated, the rapidity of growth and the value of the wood, make this a very desirable species for forest planting. It probably is advisable to plant it in mixture with other species, such as, red oak or ash. Being of more rapid growth than the other two, it could be cut at the end of 25 years for pulpwood, allowing the other spe-

cies to continue to grow and be cut later on for high grade lumber.

On account of the low fertility of the seed it is necessary to sow 8 or 9 times as much seed as seedlings are expected. The fleshy root of the tulip poplar makes it sensitive to transplanting. These factors increase the cost of successfully establishing this species, but are not prohibitive provided the seedlings are set out in the spring with extra care against exposure of the roots to the air, and the size of stock does not exceed 3 feet.

Yields And Returns.

On moist deep soils, to which it is particularly adapted, tulip poplar will measure from 10 to 12 inches in diameter at the breast-high point, and 75 feet in height, at the end of 35 years.

NOTE:—The State Board of Forestry maintains a forest nursery where trees suitable for forest planting are grown and distributed at cost to landowners of the State. Full particulars may be obtained upon application.